

APPENDIX 1

CLAIMS

- 1) (**Currently amended**) A coupling process between a peptide compound with at least one non-peptide compound comprising reacting in solution said peptide and said at least one non-peptide compound to produce a hydrazide link between said peptide and said at least one non-peptide compound and thereby obtain a modified peptide, wherein said non-peptide compound comprises at least one functional group selected from the group consisting of a carboxylic acid group and an alcohol group.
- 2) (**Currently amended**) The process of claim 1, wherein the functional group of said non-peptide compound, prior to reacting with said peptide compound in a solution having a pH of less than 6, is activated with an activation agent that forms (a) an ester group when said functional group is a carboxylic acid group or (b) a carbonate group when said functional group is an alcohol group, and wherein said peptide compound comprises a hydrazine group or a α -hydrazinoacetic group.
- 3) (**Currently Amended**) The process of claim 2, further comprising a step of purifying said modified peptide compound.
- 4) (**Currently amended**) The process of claim 2 or claim 3, wherein said activated functional group is at least one member selected from the group consisting of succinimidyl esters, sulfosuccinimidyl esters, aryl esters, succinimidyl carbonate, sulfosuccinimidyl carbonate, and aryl carbonate.
- 5) (**Currently amended**) The process of claim 2, wherein said peptide compound comprises an α -hydrazinoacetic group.
- 6) (**Currently amended**) The process of claim 5, wherein said α -hydrazinoacetic group is linked to the N-terminal end of said peptide compound, or to the end of a lysine side chain of said peptide compound or to the end of an ornithine side chain of said peptide compound with N,N'-tri(Boc)hydrazinoacetic acid or of N,N'-di(Boc)hydrazinoacetic acid.

7) (**Currently amended**) The process of claim 6, wherein said peptide compound is purified prior to reacting it with said non-peptide compound.

8) (**Currently amended**) The process of claim 1, wherein said non-peptide compound is at least one member selected from the group consisting of a lipid, a sugar, an alcohol and a fluorescence marker.

9) (**Currently amended**) The process of claim 8, wherein said lipid is at least one member selected from the group consisting of a saturated fatty acid, an unsaturated fatty acid and a sterol.

10) (**Currently amended**) The process of claim 9, wherein said lipid is selected from the group consisting of palmitic acid, stearic acid, cis-9, 10-epoxystearic acid, oleic acid, linoleic acid and cholesterol.

11) (**Withdrawn**) Modified peptide, characterized in that it is essentially constituted by a peptide linked, by a hydrazide link, to at least one compound A selected from the group constituted by lipids, sugars, alcohols and fluorescence markers.

12) (**Withdrawn**) Modified peptide according to claim 11, characterized in that it is an oligopeptide essentially constituted by a peptide linked, by a hydrazide link, to at least one lipid selected from the group constituted by saturated fatty acids, unsaturated fatty acids and sterols.

13) (**Withdrawn**) Modified peptide according to claim 12, characterized in that it is an oligopeptide essentially constituted by a peptide linked, by a hydrazide link, to at least one lipid selected from the group constituted by palmitic acid, stearic acid, cis-9,10-epoxystearic acid, oleic acid, linoleic acid and cholesterol.

14) (**Withdrawn**) Synthetic vaccine, characterized in that it includes at least one modified peptide according to any one of claims 11 to 13.

15) (**Withdrawn**) Diagnosis reagent, characterized in that it includes at least one modified peptide according to any one of claims 11 to 13.

16) (**Withdrawn**) Use of the residue of the process according to claim 1 for the preparation of a medicament including an active principal of a vectorized peptidic nature, useful for cell targeting.

17) (**Canceled**)

18) (**Canceled**)

19) (**Withdrawn**) A method for cell targeting a peptide which comprises administering to a host a modified peptide prepared by the process according to claim 1 for the preparation of a medicament including an active principal of a vectorized peptidic nature, useful for cell targeting.

20) (**Withdrawn**) A method for cell targeting a peptide which comprises administering to a host a modified peptide according to claim 11.

21) (**New**) The process of claim 7, wherein said peptide compound is purified by high-performance liquid chromatography.

22) (**New**) The process of claim 21, wherein said peptide compound is eluted from the high-performance liquid chromatography column with a mixture of water and alcohol, including trifluoroacetic acid.

23) (**New**) The process of claim 22, wherein said peptide compound is eluted from the high-performance liquid chromatography column with a mixture of water and isopropanol, including trifluoroacetic acid.